WHAT IS CLAIMED IS:

1. An image processor comprising:

an image memory for storing multi-valued image data therein;

pixel data acquisition means for acquiring the image data stored in said image memory on a pixel-by-pixel basis;

dither matrix storage means for storing a dither matrix having energy focused dots positioned in respective cells and arranged irregularly with a non-iterative property;

threshold value data acquisition means for acquiring threshold value data corresponding to the image data from the dither matrix storage means on the basis of an address of the image data inputted from said pixel data acquisition means; and

a comparator for comparing the image data of the pixel unit inputted from said pixel data acquisition means with the threshold value data inputted from said threshold value data acquisition means to output a predetermined binary signal.

2. An image processor as set forth in claim 1, wherein said dither matrix is divided into a plurality of cells, dot growth is made by arranging dots in each cell as concentrated and making dot growth patterns mutually different.

3. An image processor as set forth in claim 2, wherein said dots in the cells are grown as

concentrated around their energy focused dots irregularly positioned.

4. An image processor as set forth in claim 1, wherein said dots are arranged in each cell so that an inter-dot density becomes most uniform.

5. An image processor as set forth in claim 4, wherein a density between said dots in each cell is calculated on the basis of distances between energy focused dots positioned in said respective cells.

6. An image processor as set forth in claim 2, wherein said dots in said each cell are grown in a dot growth pattern so as to be most uniform in density with respect to dots to be generated in the cell adjacent to the cell of interest.

7. An image processor as set forth in claim 6, wherein said dot density in the cell of interest is calculated on the basis of distances from dots in the cells adjacent to the cell of interest.

8. An image processor as set forth in claim 1, wherein said threshold values are set in said dither matrix so that an average of set values in said each cell is an intermediate value of density levels in said image data.

9. An image processor as set forth in claim 1, wherein said threshold values in said dither matrix are set differently in said different cells of the dither matrix.

10. An image processor as set forth in claim 1,

wherein said dots are set at any of a plurality of particular positions in said cells of said dither matrix.

11. An image processor as set forth in claim 2, wherein said growth patterns of said dots in said cells of said dither matrix are made to have an identical shape when a variation in the dot shape at the time of generating an identical size of dots causes a printing density of an actual printer to be largely changed.

12. An image processing method comprising the steps of:

storing multi-valued image data in a memory;

acquiring image data stored in the memory on a pixel-by-pixel basis;

storing in storage means a dither matrix having energy focused dots positioned in respective cells and arranged irregularly with a non-iterative property;

acquiring from the dither matrix threshold value data corresponding to the acquired image data on the basis of an address of the acquired image data; and

comparing the acquired image data of the pixel unit with the acquired threshold value data in order to output a predetermined binary signal.

13. A method of claim 1, wherein said dither matrix is divided into a plurality of cells, dot growth is made by arranging dots in each cell as concentrated and making dot growth patterns mutually different.

14. A method of claim 1, wherein a density between said dots in each cell is calculated on the basis of distances between energy focused dots positioned in said respective cells.

15. A method of claim 13, wherein said dots in said each cell are grown in a dot growth pattern so as to be most uniform in density with respect to dots to be generated in the cell adjacent to the cell of interest.

16. A method of claim 15, wherein said dot density in the cell of interest is calculated on the basis of distances from dots in the cells adjacent to the cell of interest.